

WHAT IS CLAIMED IS

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1. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

10 a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

15 wherein the first management unit starts the management of the first processing steps when a management start request is received from the client or when a request other than the management start request is received.

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2. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

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a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

5 a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

10 wherein the first management unit starts the management of the first processing steps when a management start request and a request other than the management start request are received from the client.

15 3. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

20 a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

25 wherein the first management unit ends the management of the first processing steps when a management end request is

received from the client or when a predetermined time-out period expires.

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4. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

10 a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

15 a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

wherein the first management unit ends the management of the first processing steps when a management end request is received from the client and a predetermined time-out period expires.

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5. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

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a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

5 a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

wherein the second management unit starts the management of the second processing steps when a management start request is received from the client or when a request other than the 10 management start request is received.

15 6. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

20 a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

25 wherein the second management unit starts the management of the second processing steps when a management start

request and a request other than the management start request are received from the client.

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7. An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control, comprising:

10                   a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

                      a second management unit managing a series of indivisible second processing steps performed by using the function

15                   that needs exclusive access control,

                      wherein the second management unit ends the management of the second processing steps when a management end request is received from the client or when a predetermined time-out period expires.

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25                   8. An information-processing apparatus including a module which provides one or more clients with a function that

needs exclusive access control, comprising:

a first management unit managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

5 a second management unit managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

10 wherein the second management unit ends the management of the second processing steps when a management end request is received from the client and a predetermined time-out period expires.

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9. An information-processing apparatus according to claim 5 wherein the second management unit transmits, before starting the management of the second processing steps, a lock request to the module so that other clients than said client are 20 inhibited from using the function that needs exclusive access control.

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10. An information-processing apparatus according to

claim 7 wherein the second management unit transmits, after ending the management of the second processing steps, an unlock request to the module so that inhibition of using the function by other clients than said client is canceled.

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11. An information-processing apparatus according to  
10 claim 5 wherein the second management unit receives a lock type and a management start request from the client, the lock type indicating a classification of a lock request being sent to the module, and the second management unit transmits the lock request, indicated by the received lock type, to the module so that other  
15 clients than said client are inhibited from using the function that needs exclusive access control.

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12. An information-processing apparatus according to  
claim 5 wherein the second management unit receives a lock type and a lock type change request from the client, the lock type indicating a classification of a lock request being sent to the module,  
25 and the second management unit transmits the lock request,

indicated by the received lock type, to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

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13. An information-processing apparatus according to  
claim 6 wherein the second management unit determines a  
10 classification of a lock request being sent to the module, in  
accordance with a kind of a function request received from the client,  
and the second management unit transmits the lock request,  
indicated by the determined classification, to the module so that  
other clients than said client are inhibited from using the function  
15 that needs exclusive access control.

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14. An information-processing apparatus according to  
claim 6 wherein the second management unit transmits, before  
starting the management of the second processing steps, a lock  
request to the module so that other clients than said client are  
inhibited from using the function that needs exclusive access control.

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15. An information-processing apparatus according to  
claim 8 wherein the second management unit transmits, after ending  
the management of the second processing steps, an unlock request to  
the module so that inhibition of using the function by other clients  
5 than said client is canceled.

10 16. An information-processing method for an  
information-processing apparatus which provides one or more clients  
with a function that needs exclusive access control, the method  
comprising:

15 a first management step of managing a series of first  
processing steps and incidental information in a state where a  
session with a client is maintained; and

a second management step of managing a series of  
indivisible second processing steps performed by using the function  
that needs exclusive access control,

20 wherein the first management step starts the  
management of the first processing steps when a management start  
request is received from the client or when a request other than the  
management start request is received.

17. An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method comprising:

5 a first management step of managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

a second management step of managing a series of indivisible second processing steps performed by using the function 10 that needs exclusive access control,

wherein the first management step starts the management of the first processing steps when a management start request and a request other than the management start request are received from the client.

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18. An information-processing method for an 20 information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method comprising:

a first management step of managing a series of first processing steps and incidental information in a state where a 25 session with a client is maintained; and

a second management step of managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

5        wherein the first management step ends the management of the first processing steps when a management end request is received from the client or when a predetermined time-out period expires.

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19. An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method  
15        comprising:

      a first management step of managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

20        a second management step of managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

      wherein the first management step ends the management of the first processing steps when a management end request is received from the client and a predetermined time-out period expires.

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20. An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method comprising:

5 a first management step of managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

a second management step of managing a series of indivisible second processing steps performed by using the function 10 that needs exclusive access control,

wherein the second management step starts the management of the second processing steps when a management start request is received from the client or when a request other than the management start request is received.

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21. An information-processing method for an 20 information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method comprising:

a first management step of managing a series of first processing steps and incidental information in a state where a 25 session with a client is maintained; and

a second management step of managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

5       wherein the second management step starts the management of the second processing steps when a management start request and a request other than the management start request are received from the client.

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22. An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method 15 comprising:

a first management step of managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

20       a second management step of managing a series of indivisible second processing steps performed by using the function that needs exclusive access control,

25       wherein the second management step ends the management of the second processing steps when a management end request is received from the client or when a predetermined time-out period expires.

23. An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control, the method comprising:

5                   a first management step of managing a series of first processing steps and incidental information in a state where a session with a client is maintained; and

                      a second management step of managing a series of indivisible second processing steps performed by using the function 10 that needs exclusive access control,

                      wherein the second management step ends the management of the second processing steps when a management end request is received from the client and a predetermined time-out period expires.

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